



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,814	08/13/2001	Klaus Wilbuer	SWR-0055	4734

23413 7590 10/06/2003

CANTOR COLBURN, LLP
55 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002

EXAMINER

UHLIR, NIKOLAS J

ART UNIT	PAPER NUMBER
----------	--------------

1773

11

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/856,814

Applicant(s)

WILBUER ET AL.

Examiner

Nikolas J. Uhler

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 5-44 is/are pending in the application.
- 4a) Of the above claim(s) 6-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. This office action is in response to the amendment/arguments dated 9/12/03. The applicant's amendments to the instant claims are sufficient to overcome all of the prior applied objections and rejections. Accordingly, these objections/rejections are hereby withdrawn. However, the case is not in condition for allowance in view of the new prior art cited below. Additionally, the examiner hereby acknowledges applicants cancellation of claims 2-4. Thus, claims 1 and 5-44 are pending, with claims 6-44 withdrawn from consideration.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Yokoyama et al. (US4880687).

5. Claim 1 requires a coating made of a film formed on the basis of at least one polymer material that includes at least one property changing component embedded in a matrix of the polymer material, the film comprising several layer-like areas, at least one of which contains the property changing component, wherein a concentration of the property changing component varies in a direction of a thickness of one of the layer-like areas.

Art Unit: 1773

6. The examiner acknowledges that while it is the duty of the examiner to interpret the claims in light of the specification, it is also the duty of the examiner to give the claims their broadest reasonable interpretation. Bearing this in mind, the examiner has interpreted the limitation requiring a "property changing component" in claim 1 to require a polymer film to contain a material that changes any property of that polymer film, i.e. hardness, lubricity, magnetization characteristics, crosslink density, etc... Further, the examiner interprets "several layer-like areas" to mean that at least 2 individual layers, or 1 individual layer with at least 2 layer-like regions (i.e. a lower region of low crosslink density and an upper region of high crosslink density) is required.

7. Regarding these limitations, Yokoyama et al. (Yokoyama) teaches a magnetic recording medium comprising a non-magnetic substrate 2, an undercoat layer 3 on the substrate, an intermediate layer 4 on the undercoat layer, a magnetic layer 5 on the undercoat layer, a protective layer of metal 6 on the magnetic layer, a protective layer of carbon 7 on the protective layer of metal, and a topcoat layer 9 on the protective layer of carbon. Additionally, in one embodiment, plasma polymerized films 71 and 75 are deposited just above and just below the protective carbon layer (column 3, lines 20-40 and figure 1).

8. The plasma polymerized films 71 and 75 are formed essentially from carbon and hydrogen (column 3, lines 50-55). Further, the topcoat 9 is formed from fluorene containing polymers, such as tetrafluoroethylene polymers and fluorocarbon resins (column 6, lines 50-60). The examiner considers the polymer based plasma polymerized films 71/75 and the polymer based topcoat 9 to be equivalent to the

Art Unit: 1773

applicants claimed film having multiple layer-like areas. Further, Yokoyama teaches in a preferred embodiment, the topcoat layer is formed such that the concentration of fluorine continuously or discontinuously increases toward the surface of the topcoat layer (column 15, line 54-column 16, line 10). The presence of a large amount of fluorine at the surface of the topcoat improves the durability of the film (column 16, lines 5-7). Thus, given that Yokoyama teaches that the concentration of fluorine in the topcoat layer impacts the durability of the film, the fluorine in the topcoat layer is equivalent to applicants claimed "property changing component." Further, as the concentration of fluorine changes over the thickness of the topcoat film, the requirement in claim 1 that the concentration of the property changing component in one of the layer-like areas changes in a direction of thickness of one of the layer like areas is met. Thus, all of the requirements of claim 1 are clearly anticipated by Yokoyama.

9. The limitations of claim 5 require individual layer like areas arranged next to one another to follow the contours of a basic material, whereby an interface between each two different layer like areas runs crosswise to the surface contours of the basic material.

10. With respect to the limitations of claim 5, it is the examiners position that the plasma polymerized layer 75 and fluoropolymer based topcoat 9 taught by Yokoyama are equivalent to applicants claimed layer-like areas arranged next to one another, as these layers are shown to be adjacent one another in figure 1. With respect to the requirement of a base material, the examiner interprets all of the layers below the plasma polymerized layer 75 as shown in figure 1 of Yokoyama to be equivalent to

Art Unit: 1773

applicant's claimed base material. As clearly shown by figure 1, the plasma polymerized layer 75 and topcoat layer 9 clearly follow the contours of the layers below the plasma-polymerized layer 75. Thus, all of the limitations are claim 5 are clearly anticipated by Yokoyama.

Response to Arguments

11. Applicant's arguments filed 9/12/03 have been fully considered but they are not persuasive. In the instant case, the entirety of the applicants arguments are directed towards the fact that the previously cited prior art does not teach the required concentration gradient of a property changing component in one of the layer-like areas. This argument is clearly addressed by the new grounds of rejection, and is thus considered by the examiner to be unpersuasive.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1773


the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolas J. Uhler whose telephone number is 703-305-0179. The examiner can normally be reached on Mon-Fri 7:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on 703-308-2367. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-0389.

nju
nju


Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700